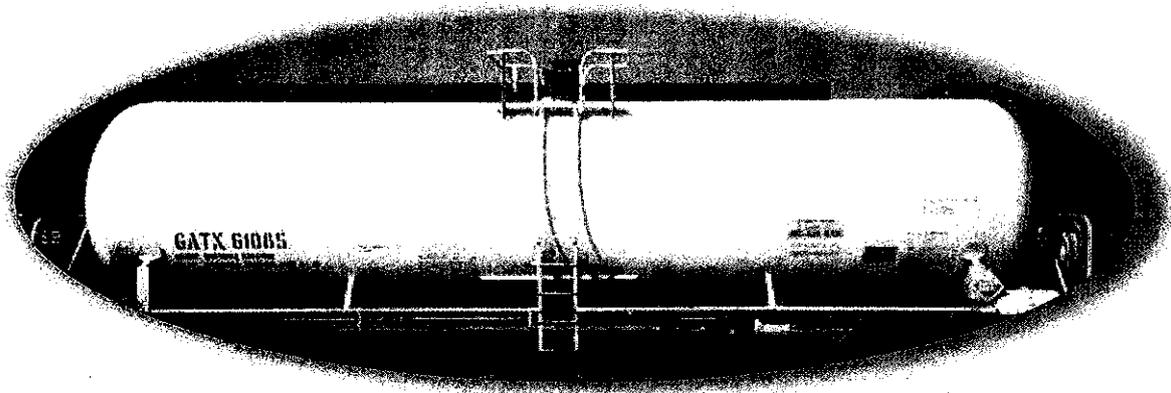


ILLINOIS COMMERCE COMMISSION



2000 ANNUAL REPORT ON ACCIDENTS/INCIDENTS Involving Hazardous Materials on Railroads in Illinois



STATE OF ILLINOIS



ILLINOIS COMMERCE COMMISSION

April 30, 2001

Members of the Illinois State Senate
Senate Post Office
State House
Springfield, Illinois 62706

Re: 2000 ICC Hazardous Materials Report

Dear Members of the Illinois State Senate:

The attached report by the staff of the Illinois Commerce Commission is hereby submitted to the General Assembly in response to 625 Illinois Compiled Statutes, 18c-1204. Section 18c-1204 directs the Commission to "prepare and distribute to the General Assembly... a report on railway accidents in Illinois which involve hazardous materials."

As required by Illinois law, this report includes the location, substance involved, amounts involved, and the suspected reason for each accident, which occurred in Illinois during calendar year 2000. The report also provides the rail line and point of origin of the hazardous material involved in each accident.

Additionally, the report contains the following related information:

- Details regarding events where hazardous material was involved but no release occurred;
- An overview of ICC activities relative to the transportation of hazardous materials by rail within the State; and,
- A history of the railroad hazardous materials program.

I trust you will find this report helpful.

Sincerely,

A handwritten signature in cursive script, appearing to read "Richard L. Mathias".

Richard L. Mathias
Chairman

STATE OF ILLINOIS



ILLINOIS COMMERCE COMMISSION

April 30, 2001

Members of the Illinois House of Representatives
House Post Office
Stratton Building, 2nd Floor
Springfield, Illinois 62706

Re: 2000 ICC Hazardous Materials Report

Dear Members of the Illinois House of Representatives:

The attached report by the staff of the Illinois Commerce Commission is hereby submitted to the General Assembly in response to 625 Illinois Compiled Statutes, 18c-1204. Section 18c-1204 directs the Commission to "prepare and distribute to the General Assembly... a report on railway accidents in Illinois which involve hazardous materials."

As required by Illinois law, this report includes the location, substance involved, amounts involved, and the suspected reason for each accident, which occurred in Illinois during calendar year 2000. The report also provides the rail line and point of origin of the hazardous material involved in each accident.

Additionally, the report contains the following related information:

- Details regarding events where hazardous material was involved but no release occurred;
- An overview of ICC activities relative to the transportation of hazardous materials by rail within the State; and,
- A history of the railroad hazardous materials program.

I trust you will find this report helpful.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard L. Mathias".

Richard L. Mathias
Chairman

**ILLINOIS COMMERCE COMMISSION'S
2000 ANNUAL REPORT
ON ACCIDENTS/INCIDENTS
INVOLVING HAZARDOUS MATERIALS ON
RAILROADS IN ILLINOIS**

**Prepared by:
Transportation Division
Railroad Safety Section**

**Illinois Commerce Commission
527 East Capitol Avenue
Springfield, Illinois 62701**

FORWARD

The following report by the staff of the Illinois Commerce Commission was prepared in accordance with the provisions of 625 ILCS 5/18c-1204, which directs the Commission to "prepare and distribute to the General Assembly... a report on railway accidents in Illinois which involve hazardous materials." The law also provides that the report shall include the location, substance involved, amounts involved, and the suspected reason for each accident, as well as the rail line and point or origin of the hazardous material involved in each accident."

Additionally, the report contains the following related information:

- Details regarding events where hazardous material was involved but no release occurred;
- An overview of ICC activities relative to the transportation of hazardous materials by rail within the State; and,
- A history of the railroad hazardous materials program.

TABLE OF CONTENTS

BACKGROUND.....	1
LEGISLATIVE HISTORY	1
HAZARDOUS MATERIALS INSPECTION ACTIVITIES	2
INSPECTIONS.....	2
<i>Railroad Equipment</i>	2
<i>Roll-By</i>	3
<i>Documentation</i>	3
<i>Shipping Facilities</i>	4
TECHNICAL ASSISTANCE.....	4
ESCORT OF NUCLEAR MATERIAL.....	4
EDUCATION	5
ADVISORY BOARD PARTICIPATION (ACCIDENT RESPONSE PLANNING).....	5
COMMISSION INSPECTION PROGRAM AND PERSONNEL.....	6
DATA REGARDING ACCIDENTS DURING 2000 REQUIRED BY LAW.....	7
STATE AND FEDERAL PARTICIPATION PROGRAM.....	8
QUALIFICATIONS FOR A HAZARDOUS MATERIALS INSPECTOR	8
TABLE A.....	10
TABLE B	11
TABLE C	12
RAILROAD COMPANIES CITED IN THE PRECEDING TABLES.....	17
LIST OF ATTACHMENTS.....	20

BACKGROUND

Illinois is a key hub in the nation's transportation system. With nearly 8,000 miles of railroad track, Illinois' rail system is the country's second largest, with the Chicago and East St. Louis terminals being two of the country's busiest. Approximately three million tons of hazardous materials move by rail through Illinois per year, representing 9 to 11 percent of the total Illinois freight traffic, making Illinois the second ranked state in the nation in origination, and third in termination, of hazardous materials shipments.

There are approximately 3,500 materials identified as hazardous by the U. S. Department of Transportation ranging from mild irritants to poisonous and radioactive materials. The Association of American Railroads' Bureau of Explosives has identified approximately 125 hazardous materials which comprise 88 percent of railroad hazardous materials shipments (see Attachment 6 for a listing of hazardous materials commonly transported by rail in the United States and the hazard class of that commodity). Shipments range from packages as small as pint containers within trailers on flat cars to tank cars holding as much as 42,000 gallons.

In 2000, 18,499 hazardous materials rail cars were inspected in Illinois, up from 15,102 in 1999. Violations of hazardous materials regulations found by Commission inspectors decreased from 12 percent in 1981 to 4.2 percent in 2000. This reduction is due in large part to Commission initiated conferences with rail carriers and shippers to apprise them of the complex and evolving regulations and ICC follow-up inspections to assure compliance.

LEGISLATIVE HISTORY

On August 2, 1978, the Illinois Hazardous Materials Railroad Transportation Act (IHMRTA) was signed into law. This legislation was enacted after major railroad incidents involving hazardous materials occurred in Crescent City, Decatur, and East St. Louis. The Illinois Commercial Transportation Law (ICTL), which became effective January 1, 1986, recodified existing transportation regulations, including the IHMRTA, into one statute. The ICTL was amended effective January 1, 1988, to give the Commission jurisdiction over that portion of private facilities used in preparation for, or in receipt of, shipments of hazardous materials by railroad. On January 1, 1993, the Illinois Compiled Statutes superseded the Illinois Revised Statutes. This changed the legislative citation of the Illinois Commercial Transportation Law from 95 Illinois Revised Statutes 18c-7404 to 625 ILCS 5/18c-7404. Section 18c-7404 (a) (i) provides that:

- (a) Powers of the Commission. The Commission is authorized to regulate the transportation of hazardous materials by rail carrier by:
 - (i) Adopting by reference the hazardous materials regulations of the Office of Hazardous Materials Transportation and the Federal Railroad Administration of the United States Department of Transportation, as amended.

Pursuant to this legislation, the Commission has adopted, by reference, and periodically updated applicable portions of rail transportation regulations contained in the Code of Federal Regulations, Title 49, Parts 100-185, the most recent being its 92 Illinois Administrative Code 1605, effective January 1, 1990.

This annual report on railroad hazardous materials transportation is mandated by 625 Illinois Compiled Statutes 5/18c-1204 (3) Additional Functions. The first report was published by the Commission in April of 1990.

HAZARDOUS MATERIALS INSPECTION ACTIVITIES

As a result of the IHMRTA and an initial appropriation by the General Assembly, in 1978, the Commission established a railroad hazardous materials program which was continued under the ICTL. The program has four main components: (1) inspection, (2) technical assistance, (3) escort of nuclear materials (none are currently being shipped by rail), and (4) education.

Inspections

The four categories of inspections are as follows:

Railroad Equipment

Hazardous materials equipment inspections are performed on a stationary hazardous material rail car normally in a railroad yard or on a shipping facility's loading and unloading tracks. This is to ensure proper placarding (placards provide recognition information in a number of ways - see Attachment 1 for examples of placards and information they provide, particularly to emergency response personnel), marking, stenciling, tank and valve test dates, and mechanical safety features. When all of the above conform with 92 Illinois Administrative Code 1605, the rail car is in compliance with federal and state regulations.

Roll-By

A roll-by inspection involves monitoring an entire moving train. The location of loaded hazardous materials cars and those which have been unloaded but still contain a residue of a hazardous material is observed in relation to engines, occupied cabooses, other hazardous materials cars, and certain other types of cars and their lading, which could damage a hazardous materials car. If cars are improperly placed in the train, Commission inspectors stop the train and order proper placement.

Inspectors meet with train crews at departure and arrival terminals to see that they have the required copies of train consists and car movement waybills. A "consist" lists the location of each car in the train and indicates the location of a hazardous materials car to ensure that the car is properly placed within the train (see Attachment 3 for a sample consist). A "waybill" is a document listing goods and shipping instructions (see Attachment 2 for sample waybill). Both federal and state regulations require emergency response information to be present on a waybill, or on a waybill in conjunction with an emergency response book, or on a material safety data sheet in conjunction with a train consist (for a sample of a data sheet, see Attachment 4). In the event of an incident, this information provides valuable assistance to emergency response personnel.

Roll-by field inspection data, including location, date, railroad, line ID, number of cars, and identification numbers for hazardous materials cars, is entered into a Commission computer. Hazardous materials flow statistics then may be generated for any specific time period, location, railroad, or rail line.

Documentation

Documentation inspections are conducted at rail freight offices and private shipping facilities. This involves checking for the proper preparation of shipping documents including waybills and bills of lading. A bill of lading is a document listing goods for shipment (see Attachment 5 for a typical bill of lading). A twenty-four hour emergency response telephone number must be on the shipping paper following the description of the hazardous material or on the waybill in a clearly visible location. Inspectors check for the proper shipping name, hazard class, 4-digit identification number, and weight. Hazardous materials regulations require all of the above. This is critical in the event of a mishap involving hazardous materials cars. Emergency response personnel can then get necessary and accurate information from the waybill to prepare an appropriate response to the incident.

Shipping Facilities

Shipping facilities inspections are conducted at privately owned facilities. The purpose of these inspections is to ensure that loading and unloading operations are being safely performed, that rail cars are safe, and that all hazardous materials regulations are met prior to such cars being released to rail carriers for shipment.

Inspectors also meet with shippers' personnel to discuss the regulations and check bills of lading. Inspectors met with 14 major shippers in 2000.

Technical Assistance

Commission inspectors also respond to rail related collisions/incidents involving hazardous materials. The Commission's role is to provide technical assistance to the emergency response personnel. Inspectors provide assistance by determining whether the product information provided by the rail carrier or shipper to the emergency response personnel is proper and adequate, by advising as to spill mitigation and clean-up techniques, by assisting in the identification of the cause of the event, and by checking for violations of hazardous materials regulations. Commission inspectors are available to respond to railroad hazardous materials incidents at any time of the day or night.

The Commission is one of eleven state agencies with a primary role in hazardous materials incident response. With this responsibility, a member of the State Hazardous Materials Emergency Response Team helps coordinate activities at major incidents. The Commission is the only state agency with direct jurisdiction over railroads.

Under Title III of the Superfund Amendments and Reauthorization Act (SARA), statistical information on hazardous materials flow is available on request to county-wide emergency planning districts and to local fire departments and emergency response agencies. Information has been provided to 20 local fire departments and emergency response agencies since 1990.

Escort of Nuclear Material

The movement of nuclear material, in or through the state of Illinois by rail, occurs with minimal frequency. The last such series of rail movements took place in April 1990. Acting pursuant to Volume X of the ILLINOIS PLAN FOR RADIOLOGICAL ACCIDENTS, Commission railroad hazardous materials inspectors stopped trains hauling spent nuclear fuel from Nebraska and Minnesota and Three Mile Island nuclear waste at or near the Illinois border and, along with Illinois Department of Nuclear Safety personnel, inspected

and examined the shipments to see that they met hazardous materials and radioactive materials regulations. They then escorted the trains as they moved through, or terminated in Illinois. Illinois Commerce Commission track inspectors, certified by the Federal Railroad Administration, also made a track inspection ahead of the train movements. These materials were transported in special trains that handled only two or three cask cars per shipment and traveled at a maximum speed of 35 miles per hour. These trains were also provided with an armed escort by the shipper.

The Commission anticipates more of this type of rail movement in the future as spent fuel is moved to a national repository.

Radioactive material is probably the most controversial and misunderstood class of hazardous materials being transported by railroad. Although there has never been a transportation accident during which radioactive material was released, widespread concern remains regarding its safe transportation and thus careful planning and inspection are essential to building and maintaining public confidence.

Education

As provided by statute, Commission inspectors offer training for local enforcement and emergency response agencies. This training is designed to acquaint participants with rail car marking and placarding requirements and emergency response guide books. Another program is presented to fire departments concerning tank car structure and damage assessment. Commission inspectors also make presentations on the interpretation and application of the federal and state hazardous materials regulations to railroad company personnel. Since 1990, seventy presentations on hazardous materials have been made to approximately 1,570 persons affiliated with a variety of emergency planning and response teams.

The Illinois Emergency Management Agency provides hazardous materials training and certification that emergency response personnel must have. This, along with the increased availability of private organizations and universities offering hazardous materials training and certification, has resulted in fewer requests for presentations by our hazardous materials inspectors.

Advisory Board Participation (Accident Response Planning)

The Railroad Safety Program Administrator of the Commission's Transportation Division is a member of the Illinois Hazardous Materials Advisory Board. The Board was instrumental in setting minimum standards for hazardous materials response training, incident notification and evaluation, and emergency planning under 430 ILCS 50/4 of the

Illinois Compiled Statutes. In recent years, the Illinois Emergency Management Agency has taken over some of the Illinois Hazardous Material Advisory Board's duties.

Commission Inspection Program and Personnel

During 2000, each inspector spent approximately 80% of the work year at various railroad sites and industrial locations around the state, checking for compliance with hazardous materials regulations. Each major railroad yard and interchange point was monitored seven to eight times per year. Railroad shippers also were monitored on a regular basis. The remaining non-field time was spent in the following areas: responding to buyer and seller inquiries under the Illinois Responsible Property Transfer Act of 1988, pertaining to spilled hazardous materials along railroad property, responding to inquiries and complaints from the public, shippers and railroads dealing with hazardous materials; and responding to The Illinois State Geological Survey (IDNR) requests for information about railroad hazardous materials spills. The last item is necessary for environmental site assessments, which are prepared for the Illinois Department of Transportation. This information is used to evaluate the possible presence of hazardous materials on property to be acquired for road improvements. The remaining time was spent in training, entering hazardous materials inspection data into computers and other office activity.

The two inspectors who performed the work documented in this report have over 38 years of hazardous materials and railroad experience combined. Their regulatory enforcement and emergency response training has been ongoing since joining the staff. Since the inception of the program, Commission inspectors have received training at the Transportation Safety Institute in Oklahoma City, Oklahoma; the Colorado Training Institute in Denver, Colorado; the Fire Service Institute at the University of Illinois in Champaign; the Federal Railroad Administration Hazardous Materials training in Kansas City, Missouri; the Federal Railroad Administration's Orientation Course in Washington, D.C.; the Advanced Hazardous Materials Regulations Course in Atlanta, Georgia; the International Maritime Dangerous Goods Course in Seattle, Washington; the Advanced Hazardous Materials Course in Denver, Colorado; the Tank Car Course in Longview, Texas; and the Radar and Tank Car Course in Valparaiso, Indiana.

During 2000, both inspectors attended a Hazardous Materials Recurrency Course in Oklahoma City; and Bureau of Explosives Seminar in Chicago. One inspector attended a Basic Radioactive Materials Course in Henderson, Nevada, and a High Level Radioactive Waste Course in Chicago.

DATA REGARDING ACCIDENTS DURING 2000 REQUIRED BY LAW

Specific information required by 625 Illinois Compiled Statutes 18c-1204 is shown in tabular form on the following pages. The applicable Section states: "The staff shall prepare and distribute to the General Assembly, in April of each year, a report on railway accidents in Illinois which involve hazardous materials. The report shall include the location, substance involved, amounts involved, and the suspected reason for each accident. The report shall also reveal the rail line and point of origin of the hazardous material involved in each accident."

The report is divided into three categories.

Table A shows railroad derailments where hazardous materials were being transported in the derailed railroad equipment and a hazardous material release occurred.

Table B shows railroad derailments where hazardous materials were being transported in the train and railroad equipment derailed, but no hazardous material was released.

Table C shows hazardous material releases from railroad equipment where no derailment occurred.

The location column in Tables A, B, and C indicates the county where the accident/incident occurred and the nearest identifiable location. Information for all three tables was obtained from reports to the Commission from Illinois railroads and from the United States Department of Transportation, Research and Special Programs Administration.

Three categories of information not specifically requested by the General Assembly have been added to make the report more useful. The first category is "Amount Released". This is important since the category "Amount Involved", cited in the statute, could easily be confused with the category of "Amount Released". Amount Involved is how much was being transported. Amount Released is how much was actually released to the environment. The second added category is the type of railroad equipment involved since it was felt that this information would be useful in interpreting the report. The third category, added to help identify the specific incident, is the date of the incident

In the tables, railroad companies are designated by their initials. A listing of the complete names of each company follows Tables A, B, and C.

STATE AND FEDERAL PARTICIPATION PROGRAM

Under federal law 49 CFR, Part 212, which became effective July 24, 1992, individual states are authorized to participate in the Railroad Hazardous Materials Inspection Program. This program is under the supervision of the FRA and allows state inspectors the same authority as federal inspectors in safety inspections and investigations, with respect to the transportation of hazardous materials, under the Federal Hazardous Materials Transportation Uniform Safety Act of 1990.

In order to participate in the Federal Railroad Administration Hazardous Materials inspection program, the state has to annually enter into a federal-state participation agreement. If such an agreement is not entered into, the state will be preempted from rail hazardous materials enforcement activity.

Since 1993 the Commission's Hazardous Materials Inspectors have been utilizing federal report forms as called for under Federal Railroad Safety Program State Participation Agreement. Inspectors also continue to use the state inspection report forms since federal forms do not require all the data necessary to prepare this report and respond to public inquiries and complaints concerning hazardous materials transportation. However, any violations found upon which the inspectors recommend action be taken must be handled through the Federal Railroad Administration under the federal-state agreement.

Under the Federal Railroad Administration program, continuing federal training for the hazardous materials inspectors is also provided at Federal Railroad Administration's cost.

QUALIFICATIONS FOR A HAZARDOUS MATERIALS INSPECTOR

Minimum qualifications for hazardous materials inspectors are established at CFR 49, §212.227 as follows:

- (a) The hazardous materials inspector is required, at a minimum, to be able to conduct independent inspections to determine compliance with all pertinent sections of the Federal hazardous materials regulations (49 CFR parts 171 through 174, 179 and 180), to make reports of those inspections and findings, and to recommend the institution of enforcement actions when appropriate to promote compliance.
- (b) The hazardous materials inspector is required, at a minimum, to have at least two years of recent experience in developing, administering, or performing managerial functions related to compliance with the hazardous materials

regulations; four years of recent experience in performing functions related to compliance with the hazardous materials regulations; or a bachelor's degree in a related technical specialization. Successful completion of the apprentice-training program may be substituted for this requirement.

(c) The hazardous materials inspector shall demonstrate the following specific qualifications:

(1) A comprehensive knowledge of the transportation and operating procedures employed in the railroad, shipping, or manufacturing industries associated with the transportation of hazardous materials;

(2) Knowledge and ability to understand and detect deviations from the Department of Transportation's Hazardous Materials Regulations, including Federal requirements and industry standards for the manufacturing of bulk packaging used in the transportation of hazardous materials by railroad;

(3) Knowledge of the physical and chemical properties and chemical hazards associated with hazardous materials that are transported by railroad;

(4) Knowledge of the proper remedial actions required to bring railroad, shipper, and/or manufacturing facilities into compliance with the Federal regulations; and

(5) Knowledge of the proper remedial actions required when a hazardous materials transportation accident or incident occurs.

To be certified, an inspector must spend time in the field with a Federal Railroad Administration Hazardous Materials Specialist and pass a written examination on the Hazardous Materials Regulations.

TABLE A

Hazardous Materials Physically Involved In Derailment And Hazardous Materials Release Occurred

Location	Railroad Involved	Substance Involved	Point of Origin	Suspected Reason for Incident	Amounts Involved	Amounts Released	Type of Equip.	Date
Joliet Will	EJE	Diesel Fuel	Joliet, IL	Bad Switch	3,000 gals.	50 gals.	E	01/31/00
Riverdale Cook	CSX	Diesel Fuel	Riverdale, IL	Locomotive ran off stub track	3,200 gals.	2,000 gals.	E	04/15/00
Riverdale Cook	CSX	Hydrochloric Acid	Natrum, WV	Human Error	20,568 gals.	80 gals.	T	07/23/00
East St. Louis St. Clair	GWWWR	Toluene	Tulsa, OK	Under investigation	27,375 gals.	12 gals.	T	11/21/00
Chicago Cook	UP	Diesel Fuel	Chicago, IL	Weather	3,000 gals.	3,000 gals.	E	12/29/00

T = Tank E = Engine CH = Covered Hopper R = Refrigerated Car COFC = Container on Flat Car

TABLE B

Hazardous Materials Physically Involved in Derailment Where No Hazardous Materials Release Occurred

Location	Railroad Involved	Substance Involved	Point of Origin	Suspected Reason for Incident	Amounts Involved	Amounts Released	Type of Equip.	Date
Melrose Park Cook	UP	Vinylidene Chloride	Freeport, TX	Poor train handling	30,000 gals.	0	T	02/23/00
Toluca Marshall	BNSF	Sodium Methylate Solution	Deerpark, TX	Unknown	30,000 gals.	0	T	06/26/00
Goodwine Iroquois	UP	Flammable Gas	Fort Saskatchewan, AL	Mechanical Error	30,000 gals.	0	T	09/10/00
Moline Rock Island	BNSF	Vinyl Chloride	Cedar Rapids, IA	Wide Gauge	24,839 gals.	0	T	10/10/00
Moline Rock Island	BNSF	Denatured Alcohol	Cedar Rapids, IA	Wide Gauge	30,140 gals.	0	T	10/10/00
Hillsboro Montgomery	UP	Esters, N.O.S.	Texas City, TX	Unknown	30,000 gals.	0	T	11/26/00

T = Tank TOFC = Trailer on Flat Car

TABLE C

Hazardous Materials Released From Rail Cars Where No Derailment Occurred

Location	Railroad Involved	Substance Involved	Point of Origin	Suspected Reason for Incident	Amounts Involved	Amounts Released	Type of Equip.	Date
Big Rock Kane	BNSF	Diesel Fuel	Yard	Broken site glass	2,000 gals.	25 gals.	E	01/08/00
Decatur Macon	NS	Environmentally, Hazardous Substances, Solid N.O.S.	Quincy, IL.	Improperly closed & sealed hopper doors	194,000 lbs.	10 lbs.	CH	01/14/00
Decatur Macon	NS	Methyl Mercaptan	Institute, WV	Safety valve flange cracked	24924 gals.	vapor	T	01/23/00
Schiller Park Cook	CP	Diesel Fuel	Chicago, IL.	Crack in tank	120 gals.	10 - 20 gals.	E	01/27/00
Decatur Macon	NS	Diesel Fuel	Yard	Fuel line failure	2,000 gals.	5 gals.	E	02/02/00
Joliet Will	EJE	Hydrogen Peroxide Stabilized	Longview, WA	Improperly secured dome cover	17,090 gals.	1 quart	T	02/15/00
Riverdale Cook	CSX	Diesel Fuel	Yard	Side swiped	3,900 gals.	440 gals.	E	02/22/00
Galesburg Knox	BNSF	Ammonium Hydroxide	Rosemont, MN	Internal heater coil failure	31,356 gals.	5 gals.	T	03/05/00
Danville Vermillion	CSX	Fuel Oil	Yard	Rupture in tank	2,000 gals.	50 gals.	E	03/05/00

N.O.S. = Not Otherwise Specified T = Tank E = Engine TOFC = Trailer on Flat Car COFC = Container on Flat Car PT = Portable Tank
CH = Covered Hopper

Location	Railroad Involved	Substance Involved	Point of Origin	Suspected Reason for Incident	Amounts Involved	Amounts Released	Type of Equip.	Date
Williamsfield Knox	BNSF	Diesel Fuel	Yard	Fuel tank leaking	5,000 gals.	50 - 100 gals.	E	03/07/00
Decatur Macon	NS	Petroleum Distillates N.O.S.	Shreveport, LA	Loose bottom outlet valve handle & cap	26,668 gals.	< 1 gal.	T	03/23/00
Grayslake Lake	WC	Diesel Fuel	Yard	Fuel side glass was broken	400 gals.	300-400 gals.	E	03/24/00
Riverdale Cook	CSX	Diesel Fuel	Yard	Equipment malfunction	5,000 gals.	50 gals.	E	04/04/00
Harvey Cook	CNIC	Sodium Hydroxide	Virginia Beach, VA	Improper blocking & bracing	55 lbs.	5 lbs.	TOFC	04/15/00
Dolton Cook	UP	Diesel Fuel	Yard	Hit storm drain	150 gals.	100 gals.	E	04/17/00
East St. Louis St. Clair	UP	Lube Oil	Yard	Unknown	250 gals.	100 gals.	E	04/20/00
East St. Louis St. Clair	CSX	Petroleum Gases, Liquefied	Hartford, IL	Loose packing nut	30,235 gals.	< 1 gal.	T	04/26/00
Urbana Champaign	CNIC	Acetaldehyde	Longview, TX	Manway cover improperly secured	30,000 gals.	Vapor	T	04/29/00
Decatur Macon	NS	Hydrochloric Acid	Decatur, IL	Frangible safety vent disk improperly installed	20,690 gals.	Vapor	T	05/02/00

N.O.S. = Not Otherwise Specified T = Tank E = Engine TOFC = Trailer on Flat Car COFC = Container on Flat Car PT = Portable Tank
CH = Covered Hopper

Location	Railroad Involved	Substance Involved	Point of Origin	Suspected Reason for Incident	Amounts Involved	Amounts Released	Type of Equip.	Date
Decatur Macon	NS	Hydrochloric Acid	Decatur, IL	Liquid eduction line flange bolts loose	20,789 gals.	< 1 gal.	T	05/03/00
East St. Louis St. Clair	CSX	Argon	Groves, TX	Loose packing nut	19,400 gals.	3 gals.	T	05/19/00
East St. Louis Madison	UP	Ethyl Acrylates	Taft, LA	Loose bolts on manway cover	30,000 gals.	Vapor	T	05/22/00
Dolton Cook	UP	Fluorosilicic Acid	Chicago, IL	Improperly installed support bar in manway	20,735 gals	1 gal.	T	05/22/00
Dupo St. Clair	UP	Diesel Fuel	Yard	Unknown	4,500 gals.	150 gals.	E	05/28/00
Chicago Cook	UP	Toxic Solids, Organic, N.O.S.	Long Beach, CA	Blocking and bracing	Numerous 5 gal.pails	1 gal.	TOFC	05/28/00
Ina Jefferson	UP	Argon Refrigerated Liquid	Bayport, TX	Faulty safety valve	16,294 gals.	2 gals.	T	06/05/00
Dolton Cook	UP	Corrosive Liquid, Acidic Organic, N.O.S.	Chicago, IL	Loose bolts on inlet valve	23,694 gals.	< 1 gal.	T	06/08/00
Annawan Henry	IAIS	Lube Oil	Annawan, IL	Farm tractor ran into locomotive	275 gals.	100 gals.	E	06/09/00
Milmine Platt	NS	Diesel Fuel/Raptor Herbicide	Yard	Crossing accident	3,200 gals.	100 gals.	E	06/10/00

N.O.S. = Not Otherwise Specified T = Tank E = Engine TOFC = Trailer on Flat Car COFC = Container on Flat Car PT = Portable Tank
CH = Covered Hopper

Location	Railroad Involved	Substance Involved	Point of Origin	Suspected Reason for Incident	Amounts Involved	Amounts Released	Type of Equip.	Date
Chicago Cook	UP	Diesel Fuel	Yard	Equipment failure (split hose)	4,000 gals	1,000 gals.	E	06/16/00
Chicago Cook	UP	Diesel Fuel	Yard	Train struck debris on track	2,000 gals.	100 gals.	E	06/24/00
Chicago Cook	CSX	Anhydrous Ammonia	Lima, OH	Loose pressure plate	20,000 gals.	10 gals.	T	06/25/00
North Lake Cook	UP	Diesel Fuel	Yard	Unknown	2,000 gals.	50 gals.	E	06/26/00
Urbana Champaign	CNIC	Hydrochloric Acid	Geismer, LA	Lining failure	20,000 gals.	350 gals.	T	06/29/00
Chicago Heights Cook	UP	Phosphoric Acid	Lawrence, KS	Loose dip well cap	14,789 gals.	<1 gal	T	07/10/00
Latham Logan	CNIC	Anhydrous Ammonia	Latham, IL	Equipment failure (rupture hose)	20,000 gals.	Vapor	T	07/12/00
Galesburg Knox	BNSF	Environmentally Hazardous Substance, Liquid, N.O.S.	Pittsburgh, PA	Valve packing defective	21,063 gals.	1 gal.	T	07/12/00
Chicago Cook	UP	Turpentine	Chicago, IL	Struck by forklift	5 gals.	5 gals.	TOFC	07/14/00
Venice Madison	GWWR	Petroleum Gases, Liquefied	Hartford, IL	Defective packing gland	33,778 gals.	1 gal.	T	07/17/00
Venice Madison	TRRA	Phosphoric Acid	Pocatello, ID	Failed rupture disk	208,000 lbs.	1 pint	T	07/21/00

N.O.S. = Not Otherwise Specified T = Tank E = Engine TOFC = Trailer on Flat Car COFC = Container on Flat Car PT = Portable Tank
CH = Covered Hopper

Location	Railroad Involved	Substance Involved	Point of Origin	Suspected Reason for Incident	Amounts Involved	Amounts Released	Type of Equip.	Date
East St. Louis St. Clair	UP	Chlorine	Crystal City, MO	Loose valve plugs	17,330 gals.	Vapor	T	07/24/00
Bensenville Cook	CP	Methylacrylate Monomer	Waxdale, WI	Leaking valve	22,232 gals.	2 gals.	T	07/24/00
Venice Madison	TRRA	Butylacrylate, Inhibited	Deer Park, TX	Unloading connection failed	26,485 gals.	16 oz.	T	07/25/00
Hodgkins Cook	BNSF	Corrosive Liquids, Toxic, N.O.S.	Los Angeles, CA	Blocking and bracing	55 gal. Drum	55 gals.	COFC	07/28/00
Willow Springs Cook	BNSF	Petroleum Distillate, N.O.S.	Ceres, CA	Blocking and bracing	28 gal. Drums	30 gals.	T	08/01/00
East St. Louis St. Clair	UP	Argon, Refrigerated Liquid	Arroyo, WV	Loose packing nut on fill line	25,265 gals.	Vapor	T	08/06/00
East St. Louis St. Clair	UP	Mercaptans, Liquid, Flammable, N.O.S.	Sauget, IL	Loose bolts on hatch	23,598 gals.	1 gal.	CH	08/14/00
Chicago Cook	IC	Petroleum Distillates, N.O.S.	Lemont, IL	Loose bolts on manway cover	29,980 gals.	0.5 gals.	T	08/15/00
Riverdale Cook	CSX	Ammonia, Anhydrous	Seneca, IL	Loose packing nut on slip-tube	33,487 gals.	< 1 gal.	T	08/23/00
Venice Madison	TRRA	Methylacrylate, Inhibited	Deer Park, TX	Loose outlet pipe plug	198,000 lbs.	1 gal.	T	08/25/00
Danville Vermillion	CSX	Flammable Liquid, N.O.S.	Jacksonville, FL	Loose manway bolts	20,846 gals.	1 gal.	T	08/26/00

N.O.S. = Not Otherwise Specified T = Tank E = Engine TOFC = Trailer on Flat Car COFC = Container on Flat Car PT = Portable Tank
CH = Covered Hopper

Location	Railroad Involved	Substance Involved	Point of Origin	Suspected Reason for Incident	Amounts Involved	Amounts Released	Type of Equip.	Date
Joliet Will	EJE	Corrosive Liquid, Acidic Inorganic, N.O.S.	Joliet, IL	Improper cleanup	20,330 gals.	1 quart	T	08/29/00
Galesburg Knox	BNSF	Diesel Fuel	Yard	Fuel tank rupture	4,000 gals.	1,000 gals.	E	08/30/00
Decatur Macon	NS	Polychlorinated Biphenyl Mixture	Twinsburg, OH	Car cover improperly installed	198,800 lbs.	< 5 gals	CH	09/06/00
Armstrong Vermillion	UP	Diesel Fuel	Yard	Fuel tank leak	4,000 gals.	500 gals	E	09/10/00
Chicago Cook	UP	Diesel Fuel	Yard	Punctured fuel tank	4,000 gals.	100 gals	E	09/13/00
Galesburg Knox	BNSF	Diesel Fuel	Yard	Human error	3,600 gals.	30 gals.	E	09/27/00
East St. Louis St. Clair	UP	Gasoline	Three Rivers, TX	Bottom outlet cap loose	30,017 gals.	1 gal.	T	09/29/00
Galesburg Knox	BNSF	Diisopropyl Ether	Deer Park, TX	Breach in tank	23,520 gals.	Vapor	T	10/15/00
Northlake Cook	UP	Denatured Alcohol	Peoria, IL	Manway cover gasket misplaced	30,118 gals.	< 1 gal.	T	10/22/00

N.O.S. = Not Otherwise Specified T = Tank E = Engine TOFC = Trailer on Flat Car COFC = Container on Flat Car PT = Portable Tank
CH = Covered Hopper

Location	Railroad Involved	Substance Involved	Point of Origin	Suspected Reason for Incident	Amounts Involved	Amounts Released	Type of Equip.	Date
Bensenville	CP	Diesel Fuel	Yard	Suspect fueling operation	3,000 gals.	50 gals.	E	10/26/00
Dupage								
Dolton	UP	Phosphoric Acid	Dolton, IL	Fragible disk rupture	11,730 gals.	1 gal.	T	11/02/00
Cook								
Dolton	UP	Diesel Fuel	Yard	Human Error	3,000 gals.	100 gals.	E	11/13/00
Cook								
Dolton	UP	Methyl Tert Butyl Ether	Houston, TX	Outlet cap was cross-threaded	Residue	< 1 gal	COFC	11/13/00
Cook								
Breese	CSX	Ferrous Sulfate	Quincy, IL	Faulty closing mechanism	160,000 lbs.	60 lbs.	CH	11/21/00
Clinton								
Chicago	BNSF	Lube Oil	Unknown	Two locomotives sideswiped each other	250 gals.	60 gals.	E	11/28/00
Cook								
Chicago	UP	Tetraethylenepentamine	Chicago, IL	Improper loading	5 gallon pails	5 gals.	TOFC	11/30/00
Cook								
Chicago	NS	Chloroform	Morrisville, PA	Vandalism	5 gallon pails	1 gal.	TOFC	12/17/00
Cook								

N.O.S. = Not Otherwise Specified T = Tank E = Engine TOFC = Trailer on Flat Car COFC = Container on Flat Car PT = Portable Tank
CH = Covered Hopper

RAILROAD COMPANIES CITED IN THE PRECEDING TABLES

BNSF	The Burlington Northern and Santa Fe Railway Company
CNIC	Canadian National/Illinois Central Railroad Company
CP	Canadian Pacific
CR	Consolidated Rail Corporation
CSX	CSX Transportation, Inc.
EJE	Elgin, Joliet & Eastern Railway Co.
GWWR	Gateway Western Railway Company
IAIS	Iowa Interstate Railroad, Ltd.
IHB	Indiana Harbor Belt Railroad Co.
KBSR	Kankakee, Beaverville and Southern Railroad Company
NS	Norfolk Southern Railway Company
TRRA	Terminal Railroad Association of St. Louis
UP	Union Pacific Railroad Company
WC	Wisconsin Central Railroad

LIST OF ATTACHMENTS

- Attachment 1: *Recognizing and Identifying Hazardous Materials*
- Attachment 2: Sample Waybill
- Attachment 3: Sample Consist
- Attachment 4: Emergency Response Information
- Attachment 5: Sample Bill of Lading
- Attachment 6: Top 125 Hazardous Commodity Movements by Tank Car Origination

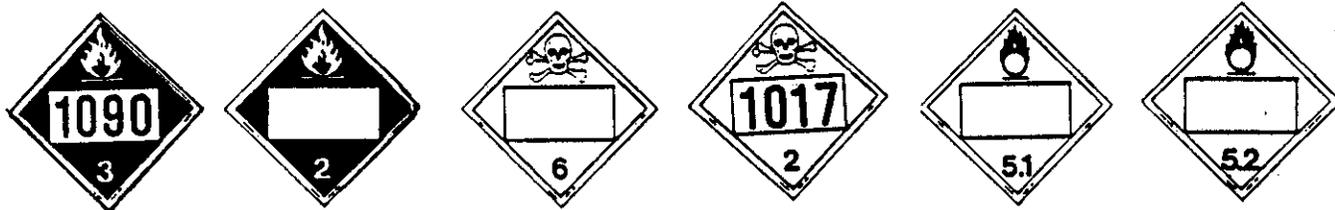
RECOGNIZING AND IDENTIFYING HAZARDOUS MATERIALS

PLACARD AND LABEL NOTES

Placards are diamond shaped — 10¾ inches square. The placard provides recognition information in a number of ways:

1. the colored background;
2. the symbol at the top;
3. The United Nations hazard class number at the bottom; and
4. the hazard class wording or the identification number in the center.
 - a. Color:
 - orange indicates explosive;
 - red indicates flammable;
 - green indicates nonflammable;
 - yellow indicates oxidizing material;
 - white indicates poisonous material;
 - white with vertical red stripes indicates flammable solid;
 - yellow over white indicates radioactive material; and
 - white over black indicates corrosive material.
 - b. Symbols:
 - the bursting ball symbol indicates explosive;
 - the flame symbol indicates flammable;
 - the slash W (W) indicates dangerous when wet;
 - the skull and crossbones indicates poisonous material;
 - the circle with the flame indicates oxidizing material;
 - the cylinder indicates nonflammable gas;
 - the propeller indicates radioactive;
 - the test tube/hand/metal symbol indicates corrosive; and
 - the word Empty indicates that the product has been removed, but a harmful residue may still be present.
 - c. United Nations Hazard Class Numbers:
 - 1 — Explosives
 - 2 — Gases
 - 3 — Flammable Liquids
 - 4 — Flammable Solids
 - 5 — Oxidizing Substances
 - 6 — Poisonous and Infectious Substances
 - 7 — Radioactive Substances
 - 8 — Corrosive Substances
 - 9 — Miscellaneous Dangerous Substances
 - d. Hazard Class or Identification Number

Below are some examples of placards.



SAMPLE WAYBILL

Attachment 2
Page 1 of 2

* *

RTMX 21065

T/C

#123456

03 06 01

St. Louis

MO.

1212 St. Louis, MO.
12 S. Street
John Doe Inc.

John Doe Inc.
Chicago, IL.

1/TC

Residue: Last Contained
Acetone, 3, UN 1090, II, RQ (Acetone)

STCC 4908105

CHEMTREC EMERGENCY CONTACT 1-800-424-9300

SAMPLE WAYBILL

Attachment 2
Page 2 of 2

* *

GAPX 6075

T/C

#123457

03 06 01

St. Louis

MO.

1212 St. Louis, MO.
12 S. Street
John Doe Inc.

John Doe Inc.
Chicago, IL.

1/TC

Phenol, Molten, 6.1, UN 2312, II,RQ (Phenol)

20,000 GAL.

STCC 4921220

CHEMTREC EMERGENCY CONTACT 1-800-424-9300

SAMPLE CONSIST

ATTACHMENT 3

TRAIN/JOB	CONDUCTOR			
NAME	CATAGORY—SECONDARY MANIFEST		TYPE—THRU	
ENGINE - IDENT	HORSEPOWER	LENGTH	WEIGHT	STATUS
6142	3000	69	200E	
1001	3000	74	200E	
ENG 1005	3000	74	200E	
TOTAL	9000 HP	217 FEET	600 TONS	

TRAIN/JOB

SEQ	EQPMNT	ID	KND	GWT	COMDTY	DESTN	ZTS/CARR	NXBLK	CITY/STATE	CONSIGNEE
BLOCK --										
1	BJOX	278	LC4T	131	CORN	7MT018		214H	MEMPHIS TN	
									IF BAD ORDERED NOTIFY SHIPPER	
2	BJOX	109	LC4T	131	CORN	7MT018		214H	MEMPHIS TN	
									IF BAD ORDERED NOTIFY SHIPPER	
3	BJOX	110	LC4T	131	CORN	7MT018		214H	MEMPHIS TN	
									IF BAD ORDERED NOTIFY SHIPPER	
4	CRDX	7227	LC4T	131	CORN	7MT018		214H	MEMPHIS TN	
									IF BAD ORDERED NOTIFY SHIPPER	
5	RTMX	21065	ET29	35		12ZA003 CR			CHICAGO IL	
									R50 SPEED RESTRICTED CAR	

1/TK

RESIDUE: LAST CONTAINED

* .

ACETONE

3

EMERGENCY CONTACT:

UN 1090

1-800-424-9300

II

RQ (ACETONE)
HAZMAT STCC = 4908105

6 GAPX 6075 LT19 36 POIS B 12ZA003 00 BRC CHICAGO IL

R50 SPEED RESTRICTED CAR

1/TC

PHENOL, MOLTEN

* .

6.1

UN 2312

EMERGENCY CONTACT:

II

1-800-424-9300

RQ (PHENOL)
HAZMAT STCC = 4921220

EMERGENCY RESPONSE INFORMATION

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **HIGHLY FLAMMABLE:** Will be easily ignited by heat, sparks or flames.
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a "P" may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.

HEALTH

- Inhalation or contact with material may irritate or burn skin and eyes.
- Fire may produce irritating, corrosive and/or toxic gases.
- Vapors may cause dizziness or suffocation.
- Runoff from fire control may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 300 meters (1000 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient.

Small Fires

- Dry chemical, CO₂, water spray or alcohol-resistant foam.

Large Fires

- Water spray, fog or alcohol-resistant foam.
- Use water spray or fog; do not use straight streams.
- Move containers from fire area if you can do it without risk.

Fire Involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapor suppressing foam may be used to reduce vapors.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- Use clean non-sparking tools to collect absorbed material.

Large Spills

- Dike far ahead of liquid spill for later disposal.
- Water spray may reduce vapor; but may not prevent ignition in closed spaces.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- **TOXIC**; inhalation, ingestion, or skin contact with material may cause severe injury or death.
- Contact with molten substance may cause severe burns to skin and eyes.
- Avoid any skin contact.
- Effects of contact or inhalation may be delayed.
- Fire may produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution.

FIRE OR EXPLOSION

- Combustible material: may burn but does not ignite readily.
- When heated, vapors may form explosive mixtures with air: indoors, outdoors, and sewers explosion hazards.
- Those substances designated with a "P" may polymerize explosively when heated or involved in a fire.
- Contact with metals may evolve flammable hydrogen gas.
- Containers may explode when heated.
- Runoff may pollute waterways.
- Substance may be transported in a molten form.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- *Keep unauthorized personnel away.*
- Stay upwind.
- Keep out of low areas.
- Ventilate enclosed areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations **ONLY**; it is not effective in spill situations.

EVACUATION

Spill

- See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under "PUBLIC SAFETY".

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fires

- Dry chemical, CO₂ or water spray.

Large Fires

- Dry chemical, CO₂, alcohol-resistant foam or water spray.
- Move containers from fire area if you can do it without risk.
- Dike fire control water for later disposal; do not scatter the material.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Do not get water inside containers.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- DO NOT GET WATER INSIDE CONTAINERS.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

(SAMPLE) Company

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of the receipt by the carrier of the property described in the Original Bill of Lading.

CUST. NUMBER 5	S.D. NUMBER 7	CAR OR TRAILER INITIAL AND NUMBER 15	DATE SHIPPED 8	MC OODD EE	ROUTE CODE 5	SHP. PLT. 1
		RTMX 21065				

the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination.

NET WEIGHT 8	GROSS WEIGHT 8	NO. OF UNIT 4	UNIT CODE 3	PROD. CODE 3	PROD. PLT. 2

It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Official, Southern, Western and Illinois Freight Classifications in effect on the date hereof, if this is a rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment. Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, including those on the back thereof, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

CONSIGNEE John Doe, Inc.	DESTINATION Chicago, IL	STATE OF IL	COUNTY OF Cook
-----------------------------	----------------------------	----------------	-------------------

FROM Permanent Postoffice Address of Shipper John Doe, Inc. St. Louis, MO	AT
--	----

ROUTE ABC Railroad	DELIVERING CARRIER ABC	AGENT ABC PER
-----------------------	---------------------------	---------------------

NO. PKGS.	DESCRIPTION OF ARTICLES, SPECIAL MARKS AND EXCEPTIONS	WEIGHT (Sub. to Corr.)	RATE
1 T/C	Residue: Last Contained Acetone 3 UN 1090 II RQ (Acetone) EMERGENCY CONTACT 1-800-424-9300 HAZ MAT STCC = 4908105	Residue	

This shipment is correctly described: CORRECT WEIGHT IS subject to verification by the Eastern, Southern or Western Weighing and Inspection Bureau, whichever applicable. 18943 John Doe, Inc. SHIPPER	LBS.	THE TOTAL WEIGHT OF THE PALLETS USED ON THE SHIPMENT IS SHOWN ABOVE.	TRANSPORTATION FREE PER ABOVE
---	------	--	-------------------------------

PURCHASE ORDER NO.	SEAL NUMBERS	THIS CAR LEASED TO: John Doe, Inc.	LIGHT-TARE WEIGHT IS
--------------------	--------------	---------------------------------------	----------------------

IF CHARGES ARE TO BE PREPAID, WRITE OR STAMP HERE "TO BE PREPAID" Prepaid	Subject to section 7 of conditions of applicable bill of lading, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement. The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.	SHIPPER John Doe, Inc. PER
--	--	--------------------------------------

SIGNATURE OF CONSIGNOR

* *

Company

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of the receipt by the carrier of the property described in the Original Bill of Lading.

CUST. NUMBER 5	S.D. NUMBER 7	CAR OR TRAILER INITIAL AND NUMBER 15	DATE SHIPPED 8	MC OODD EE	ROUTE CODE 5	SHP. PLT. 1	the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Official, Southern, Western and Illinois Freight Classifications in effect on the date hereof, if this is a rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment. Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, including those on the back thereof, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.
GAPX 6075							
NET WEIGHT 8	GROSS WEIGHT 8	NO. OF UNIT 4	UNIT CODE 3	PROD. CODE 3	PROD. PLT. 2		
CONSIGNEE John Doe, Inc.				DESTINATION Chicago, IL	STATE OF IL	COUNTY OF Cook	
FROM Permanent Postoffice Address of Shipper John Doe, Inc. St. Louis, MO				AT			
ROUTE ABC Railroad				DELIVERING CARRIER ABC	AGENT ABC PER		
NO. PKGS.	DESCRIPTION OF ARTICLES, SPECIAL MARKS AND EXCEPTIONS					WEIGHT (Sub. to Corr.)	RATE
1 T/C	Phenol, Molten 6.1 UN 2312 II RQ (Phenol) EMERGENCY CONTACT 1-800-424-9300 HAZ MAT STCC = 4921220					20,000 Gals.	
This shipment is correctly described: CORRECT WEIGHT IS LBS. subject to verification by the Eastern, Southern or Western Weighing and Inspection Bureau, whichever applicable. 18943 John Doe, Inc. SHIPPER			THE TOTAL WEIGHT OF THE PALLETS USED ON THE SHIPMENT IS SHOWN ABOVE.		TRANSPORTATION FREE PER ABOVE		
PURCHASE ORDER NO.		SEAL NUMBERS		THIS CAR LEASED TO: John Doe, Inc.		LIGHT-TARE WEIGHT IS	
IF CHARGES ARE TO BE PREPAID, WRITE OR STAMP HERE "TO BE PREPAID" Prepaid			Subject to section 7 of conditions of applicable bill of lading, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement. The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.		SHIPPER John Doe, Inc. PER		
SIGNATURE OF CONSIGNOR							

PLANT COPY

TOP 125 HAZARDOUS COMMODITY MOVEMENTS
BY TANK CAR ORIGINATION

RANK	COMMODITY NAME	**HAZ CLASS
1	Freight All Kinds - Hazardous Materials	
2	Freight All Kinds - Hazardous Materials	
3	Sodium Hydroxide Solution	C
4	Petroleum Gases, Liquefied	CG
5	Sulfuric Acid	C
6	Elevated Temperature Liquid, N.O.S.	ORM
7	Ammonia, Anhydrous, Liquefied	CG
8	Chlorine	CG
9	Sulfur, Molten	ORM
10	Sulfur, Molten	FS
11	Vinyl Chloride, Inhibited	CG
12	Propane	CG
13	Fuel Oil	FL
14	Denatured Alcohol	FL
15	Methanol	FL
16	Gasoline	FL
17	Phosphoric Acid	C
18	Hydrochloric Acid	C
19	Styrene Monomer, Inhibited	FL
20	Carbon Dioxide, Refrigerated Liquid	CG
21	Ammonium Nitrate	O
22	Gasoline	FL
23	Sodium Chlorate	O
24	Diesel Fuel	CL
25	Butane	CG
26	Petroleum Crude Oil	FL
27	Phenol, Molten	P
28	Fuel Oil	FL
29	Butadienes, Inhibited	CG
30	Fuel Oil	CL
31	Ethylene Oxide	CG
32	Methyl Tert Butyl Ether	FL
33	Fuel, Aviation, Turbine Engine	FL

RANK	COMMODITY NAME	**HAZ CLASS
34	Isobutane	CG
35	Environ. Hazardous Substances, Liquid	ORM
36	Environ. Hazardous Substances, Liquid	ORM
37	Environ. Hazardous Substances, Liquid	ORM
38	Propylene	CG
39	Propylene Oxide	FL
40	Vinyl Acetate, Inhibited	FL
41	Environ. Hazardous Substances, Solid, N.O.S.	ORM
42	Environ. Hazardous Substances, Solid, N.O.S.	ORM
43	Petroleum Crude Oil	CL
44	Xylenes	FL
45	Other Regulated Substances, Liquid	ORM
46	Cyclohexane	FL
47	Hydrogen Peroxide, Stabilized	O
48	Hexamethylenediamine, Solid	C
49	Acrylic Acid, Inhibited	C
50	Sulfuric Acid, Spent	C
51	Methyl Methacrylate Monomer, Inhibited	FL
52	Environ. Hazardous Substances, Solid, N.O.S.	ORM
53	Potassium Hydroxide, Solution	C
54	Toluene Diisocyanate	P
55	Phosphoric Acid	C
56	Acetic Acid, Glacial	C
57	Formaldehyde Solutions	C
58	Butyl Acrylates, Inhibited	FL
59	Environ. Hazardous Substances, Liquid, N.O.S.	ORM
60	Petroleum Distillates, N.O.S.	CL
61	Acetone	FL
62	Compounds, Cleaning Liquid	FL
63	Toluene	FL
64	Environ. Hazardous Substances, Solid, N.O.S.	ORM
65	Ammonium Nitrate Fertilizers	O
66	Ethanol	FL
67	White Asbestos	ORM
68	Elevated Temperature Liquid, N.O.S.	ORM

RANK	COMMODITY NAME	**HAZ CLASS
69	Liquefied Petroleum Gas	CG
70	Acrylonitrile, Inhibited	FL
71	Liquefied Petroleum Gas	CG
72	Petroleum Distillates, N.O.S.	FL
73	Environ. Hazardous Substances, Liquid	ORM
74	Hazardous Waste, Solid, N.O.S.	ORM
75	Benzene	FL
76	Fuel Oil	FL
77	Ethylene Dichloride	FL
78	Hydrogen Flouride, Anhydrous	C
79	Liquefied Petroleum Gas	CG
80	Sulfur Dioxide	CG
81	Elevated Temperature Liquid, N.O.S.	ORM
82	Elevated Temperature Liquid, Flammable, N.O.S.	FL
83	Elevated Temperature Liquid, N.O.S.	ORM
84	Diesel Fuel	CL
85	Waste Flammable Liquids	FL
86	Other Regulated Substances, Liquid, N.O.S.	ORM
87	Isobutane	CG
88	Isopropanol	FL
89	Sodium Chlorate, Aqueous Solution	O
90	Other Regulated Substances, N.O.S.	ORM
91	Phosphorus, White, Dry	FS
92	Ferrous Chloride, Solution	C
93	Elevated Temperature Liquid, N.O.S.	ORM
94	Methanol	FL
95	Petroleum Distillates, N.O.S.	FL
96	Elevated Temperature Liquid, N.O.S.	ORM
97	Propylene	CG
98	Flammable Liquids, N.O.S.	FL
99	Environ. Hazardous Substances, Solid, N.O.S.	ORM
100	Butanols	FL
101	Nitric Acid	C
102	Polymeric Beads, Expandable	ORM
103	Combustible Liquids, N.O.S.	CL

RANK	COMMODITY NAME	**HAZ CLASS
104	Acetic Anhydride	C
105	Fuel Oil	CL
106	Liquefied Petroleum Gas	CG
107	Fuel Oil	CL
108	Butylene	CG
109	Ferric Chloride, Solution	C
110	Freight All Kinds - Hazardous Materials	
111	Acetaldehyde	FL
112	Other Regulated Substances, Liquid	ORM
113	Batteries, Wet, Filled with Acid	C
114	Maleic Anhydride	C
115	Hydrocarbons, Liquid, N.O.S.	FL
116	Sulfuric Acid, Fuming	C
117	Ammonium Nitrate, Liquid	O
118	Methyl Chloride	CG
119	Alcoholic Beverages	FL
120	Elevated Temperature Liquid, N.O.S.	ORM
121	Combustible Liquid, N.O.S.	CL
122	Ethyl Acetate	FL
123	Ethyl Acrylate, Inhibited	FL
124	Kerosene	FL
125	Other Regulated Substances, Liquid, N.O.S.	ORM

**CG - Compressed Gas
 FL - Flammable Liquid
 FS - Flammable Solid
 CL - Combustible Liquid
 O - Oxidizer
 P - Poison
 C - Corrosive
 ORM - Other Regulated Material